

## APPENDIX A

[0003] Typically, the space within the engine compartment is at a premium since it is desirable to keep the engine compartment as small as possible in order to maximize the aerodynamic efficiency of the vehicle. To meet the space constraints, many automotive electronic controllers are provided on flexible circuit boards which can be folded and then placed in an appropriate housing. The circuit boards typically utilized are heavily populated with electronic traces and components. It is desirable that such circuit boards have a thin (low height) profile. Examples of flexible circuit board assemblies can be found by a review of U.S. Patent 5,924,873 and U.S. Patent Application Serial No. [09/574,634] 09/630,221 entitled "Multiple Layer Thin Flexible Circuit Board" Barcley, filed [May 18, 2000] August 1, 2000, commonly assigned. The disclosure of Barcley, [09/574,634] 09/630,221 is incorporated by reference herein. To minimize the cost and vertical height of the electronic components on many circuit board assemblies, electrical components with end caps (sometimes referred to as leadless components) are preferred.